IN THE UNITED STATES PATENT AND TRADEMARK

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Box New Patent Application
Commissioner for Patents
Washington, D.C. 20231

Attorney's Docket No.: 60409.300901

FILING TRANSMITTAL

Transmitted herewith for filing is the Patent Application of : Paul Cheng, Nelson L. Chow and Fangli Chien

For: **"LARGE DATABASE SEARCH USING CAM AND HASH"**

ENCLOSURES

☒ 40 page application including specification, claims, abstract;
☒ 10 sheets (Figs. 1 – 11b) of ☐ informal/☒ formal drawings; 1 sheet of tables as drawings (Tables as Drawings 1 – 3)
☒ A Declaration, Power of Attorney & Petition (☒ signed/☐ unsigned);
☒ A postcard for return to us as proof of receipt of the referenced documents.
and
☒ An Assignment of the invention with an assignment cover sheet;
☒ Applicant claims small entity status (Under 37 CFR 1.27);
☐ IDS (form PTO-1449) and copies of references;
☐ An Associate Power of Attorney;
☐ A certified copy of the priority document (Under 35 USC 119);
☐ A Power of Attorney by Assignee;

TYPE OF FILING

☐ This application claims the benefit of an earlier filed Patent Application Number *****, filed ***** (35 USC 120).
☐ This application claims the benefit of the priority date of an earlier filed U.S. Provisional Patent Application Serial _____, filed _____ (35 USC 119).
☐ This is an application filed pursuant to 37 CFR 1.53, permitting receipt of a filing date upon filing of specification, claims and drawings, if required, with applicant being given a period of one month from the date of notice to file the fee and oath or declaration.
☒ In the event any parts of this application are missing, please treat this as a filing under 37 CFR 1.53 as defined just above.

LARGE DATABASE SEARCH USING CAM AND HASH

Inventors: CHENG, Paul; CHOW, Nelson L.; and CHIEN, Fangli

Atty. ref.: 60409.300901

THIS CORRESPONDENCE CHART IS FOR EASE OF UNDERSTANDING AND INFORMATIONAL PURPOSES ONLY, AND DOES NOT FORM A PART OF THE FORMAL PATENT APPLICATION.

10	search engine		228a-d	paths
12	controller			
14	hash function		300	search engine
16	memory		310	H-CAM
16a	base region		312	controller
16b	conflicts region		314	memory
18	address bus		314a	base region
20	result bus		314b-e	conflicts regions
			316	search data bus
50	search engine		318	address bus
52	controller		320	result bus
54	CAM		322a-d	hash units
56	memory		324a-d	CAM units
58	search data bus		326	logic unit
60	address bus		328a-j	paths
62	result bus			
			400	search engine
100	search engine		410	H-CAM
110	hash pointer unit		412	controller
112	controller		414	memory
114	memory		414a	base region
116	hash function		414b-c	conflicts regions
118	address bus		416	search data bus
120	pointer bus		418	address bus
122	result bus		420	result bus
			422a-b	hash units
200	search engine		424a-b	CAM units
210	H-CAM		426	logic unit
212	controller		428a-e	paths
214	memory		430	programming unit
214a	base region			
214b	conflicts region		500	process
216	search data bus		510-550	steps
218	address bus			
220	result bus		600	search engine
222	hash unit		610	H-CAM
224	CAM unit		612	controller
226	logic unit		614	memory

620	result bus
622	hash unit
624	CAM unit
640	logic unit
652	comparison section
654	search data storage
656	comparator
658	logic unit
660	hash pointer memory
662	search data memory
664	hit line
700	search engine
710	H-RAM
712	controller
714	memory
722	hash unit
740	logic unit
752	comparison section
754	search data storage
756	comparator
758	logic unit
766	comparison section
800	search engine
810	H-CAM
812	controller
814	memory
862	hash blocks
864	CAM block
866	comparison section
868	main logic unit
870	input logic sub-units
872	hash unit
874	input logic sub-unit
876	CAM units

878	output logic sub-unit
880	search data storage
882	comparator
884	output logic sub-unit
886	input path
888	hit line
900	search engine
910	H-CAMs
912	controller
914	memory
916	search data bus
918	address bus
920	result bus
922	expansion bus
924	hit line
1000	search engine
1010	H-RAMs
1012	controller
1014	memory
1016	search data bus
1018	address bus
1020	result bus
1022	expansion bus
1100	search engine
1110a	CAMs
1110b	H-CAMs
1110c	H-RAMs
1112	controller
1114	memory
1116	search data bus
1118	address bus
1120	result bus
1122	expansion bus